

## SIREMOBIL Iso-C

**SP**

### Startup

#### System

#### Laser Light Localizer

Also applicable for:  
ARCADIS Orbic

© Siemens AG 2004

The reproduction, transmission or use of this document or its contents is not permitted without express written authority. Offenders will be liable for damages. All rights, including rights created by patent grant or registration of a utility model or design, are reserved.

**Document revision level**

The document corresponds to the version/revision level effective at the time of system delivery. Revisions to hardcopy documentation are not automatically distributed.

Please contact your local Siemens office to order current revision levels.

**Disclaimer**

The installation and service of equipment described herein is to be performed by qualified personnel who are employed by Siemens or one of its affiliates or who are otherwise authorized by Siemens or one of its affiliates to provide such services.

Assemblers and other persons who are not employed by or otherwise directly affiliated with or authorized by Siemens or one of its affiliates are directed to contact one of the local offices of Siemens or one of its affiliates before attempting installation or service procedures.

<b>1</b>	<b>Laser Light Localizer</b>	<b>4</b>
	Safety instructions . . . . .	4
	Other remarks. . . . .	5
	Ground conductor resistance test. . . . .	6
	Required measuring equipment and aids. . . . .	7
	Start-up. . . . .	8
	Adjusting the laser light fan beams with respect to the I.I. attachment. . . . .	9
	Placing the adjustment device . . . . .	11
	Adjusting the laser diodes in relation to the central beam . . . . .	13
	Final steps and functional test . . . . .	14
	Checking the identification labels . . . . .	15
	Labels for U.S.A. . . . .	16
	Warning label check . . . . .	17
	Servicing. . . . .	18
	Mechanical safety inspection . . . . .	18
	Operating value inspection . . . . .	18
<b>2</b>	<b>Changes to Previous Version</b>	<b>19</b>

## Safety instructions

**NOTICE**

---

**Laser**

- ⇒ This product contains two class 2 lasers. (USA: class 2 laser) Follow the safety instructions of ARTD-002.731.03... When working with the laser light localizer, do not look directly into the laser beam.
- 

**NOTE**

The eye is not in immediate danger. However, it is important not to look directly into the beam.

---

## Other remarks

These adjustment instructions apply only to the installation of a laser light localizer in a SIREMOBIL Iso-C / ARCADIS Orbic.

This document also serves as adjustment instructions in a service case and during maintenance. Store it in a safe location together with the adjustment device.

<b>NOTICE</b>
---------------

---

### Boards

⇒ **Switch off SIREMOBIL Iso-C / ARCADIS Orbic prior to unplugging and plugging boards**

---

**Ground conductor resistance test**


After all work has been completed and all covers have been installed, perform the protective conductor test according to ARTD-002.731.17... The protective conductor resistance may not exceed 0.2 ohms.

## Required measuring equipment and aids

(according to SPC, Spare Parts Catalog, under Tools)

- Tool kit
- Adjustment device for laser light localizer (delivered with laser light localizer:
  - Iso-C: 39 79 001 G5429
  - ARCADIS Orbic: 80 79 720 G2266included).
- Protective conductor meter, item no. 44 14 899 RV090

## Start-up

- Switch on laser light localizer via  when SIREMOBIL Iso-C/ pushbutton

ARCADIS Orbic is switched on. The laser light localizer automatically shuts off after 5 minutes.

- Position the C-arm in the preferred position for operation, i.e. horizontally with the C-arm lowered.
- Rotate the I.I. attachment so that the crosshairs are aligned horizontally/vertically.



## Adjusting the laser light fan beams with respect to the I.I. attachment

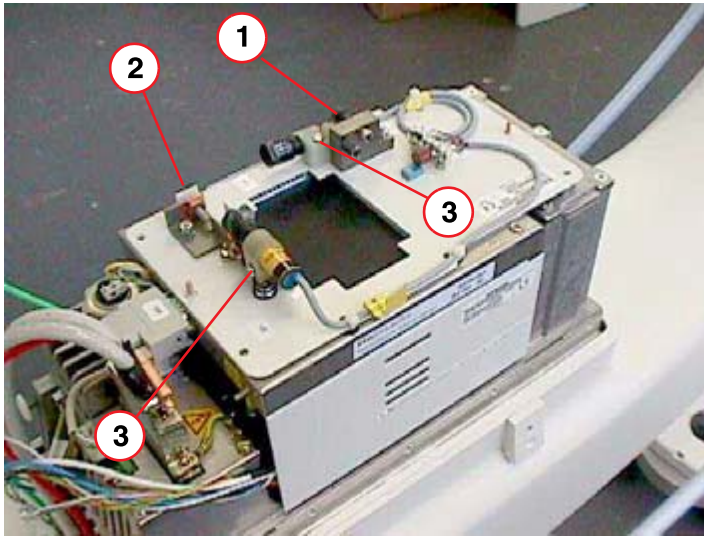


Fig. 1: Excentrics and screws

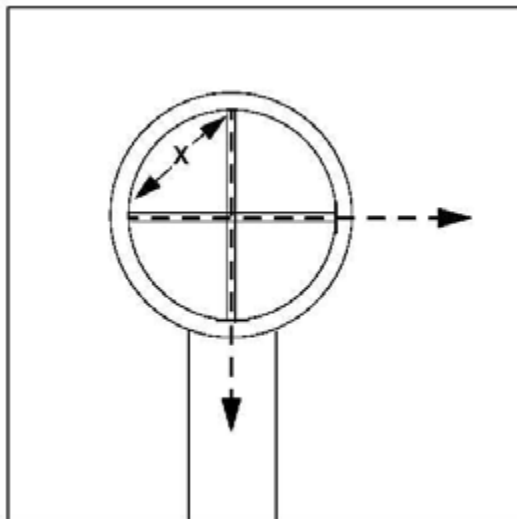


Fig. 2: Laser light fan beams

- Set the excentrics (1/Fig. 1 / p. 9) and (2/Fig. 1 / p. 9) to the "zero position".
- Loosen the screws (3/Fig. 1 / p. 9) until the laser diodes can be turned in their holders.

### NOTICE

### Important!

⇒ Do not turn the lens of the laser diodes.

- Turn the diodes in the holder until the laser light fan beams are reflected on the I.I. as shown in (Fig. 2 / p. 9). The laser light fan beams begin at (X/Fig. 2 / p. 9). This setting ensures that the laser light fan beams cross near the laser light localizer.

- Retighten the screws ([3/Fig. 1 / p. 9](#)).

## Placing the adjustment device

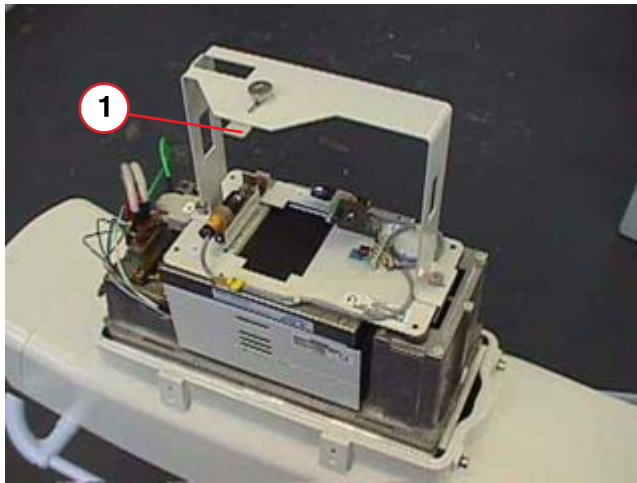


Fig. 3: Adjustment device

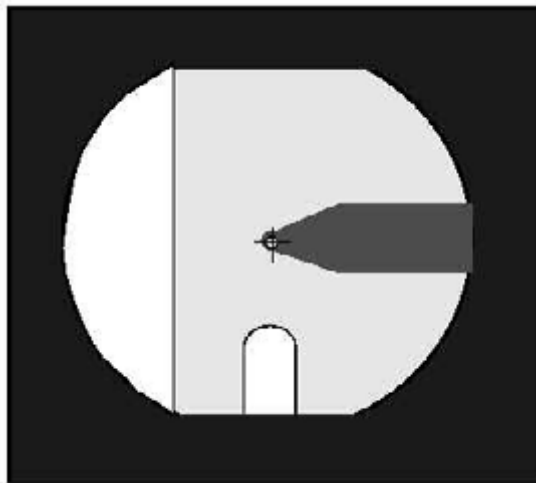


Fig. 4: Pointer

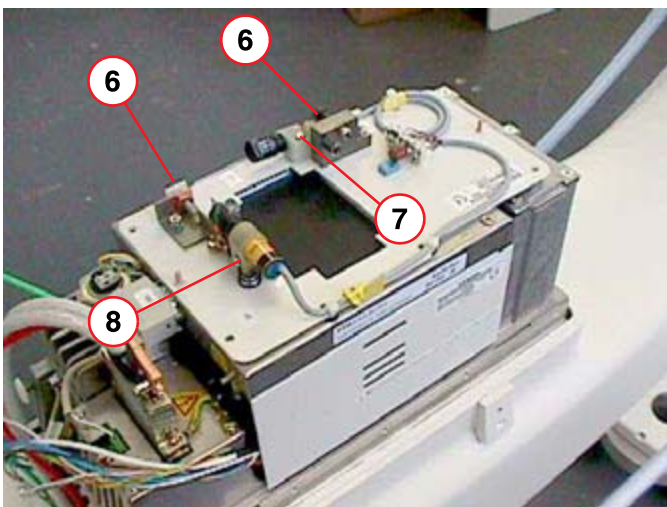


Fig. 5: Adjustment in the case of deviation

- Attach the adjustment device above the laser light localizer as shown in [\(1/Fig. 3 / p. 11\)](#).

## Adjusting the laser diodes in relation to the central beam



- Briefly switch on fluoroscopy.
- The pointer (1/Fig. 3 / p. 11) of the adjustment device and the crosshairs of the I.I. attachment are displayed on the monitor.



- Adjust the pointer and subsequently switch on fluoroscopy until the pointer is displayed on the monitor as shown in (Fig. 4 / p. 11).
- Use the adjusters (6/Fig. 5 / p. 11) to align the laser light fan beams with the lines of the I.I. attachment. The laser light fan beams must now cross exactly at the hole of the pointer.

### In case of deviation:

- Loosen the screws for laser diode V1 (7/Fig. 5 / p. 11) or the screw for laser diode V2 (8/Fig. 5 / p. 11).
- Shift the laser diode according to the deviation.
- Retighten the screw (7/Fig. 5 / p. 11) or (8/Fig. 5 / p. 11).
- Use the adjusters (6/Fig. 5 / p. 11) to align the laser light fan beams with the lines of the I.I. attachment. The laser light fan beams must now cross exactly at the hole of the pointer.
- Repeat the adjustment procedure if necessary.
- Remove the adjustment device from the laser light localizer and store in a safe location. The adjustment device is required for subsequent service and maintenance work.
- Secure the screws (7/Fig. 5 / p. 11) and (8/Fig. 5 / p. 11) with Loctite.

## Final steps and functional test

- Mount the new cover and secure using the cover screws.
- Store these adjustment instructions in register 4, "Start-up" of the SIREMOBIL system folder. These adjustment instructions can be used for adjustment procedures during subsequent service and maintenance work.
- Switch on the laser light localizer. The two lasers must shut off automatically after 5 minutes.
- Perform the protective conductor test of the complete SIREMOBIL Iso-C/ARCADIS Orbic system.

## Checking the identification labels

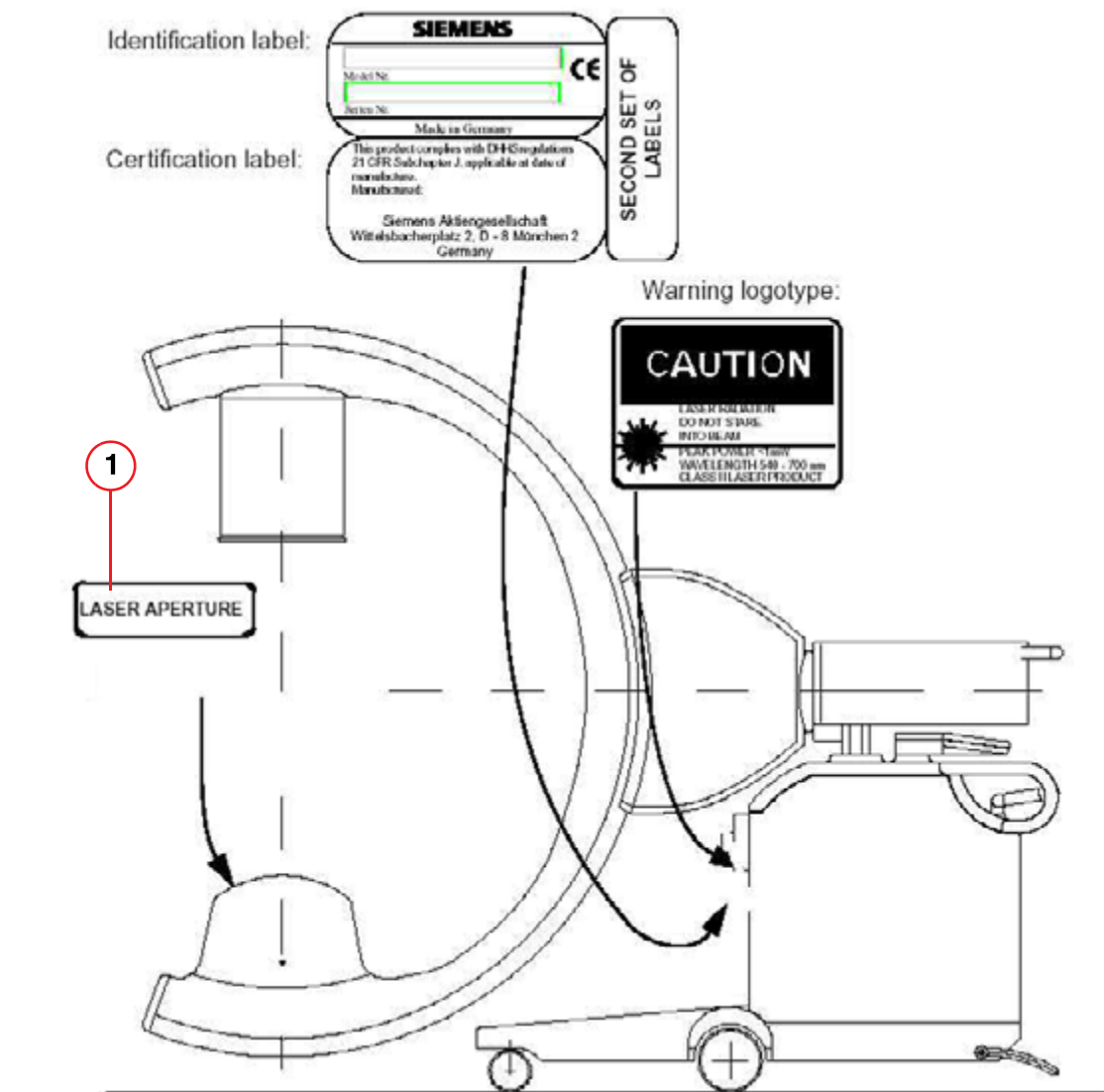


Fig. 6: Affixing identification labels for USA new  
Pos. 1 See next figure (affix identification labels 2)

## Labels for U.S.A.

- Visually inspect the identification labels, warning logo type "Laser class 2", DHHS certification label, and both laser aperture labels as in (Fig. 6 / p. 15) and (Fig. 7 / p. 16).

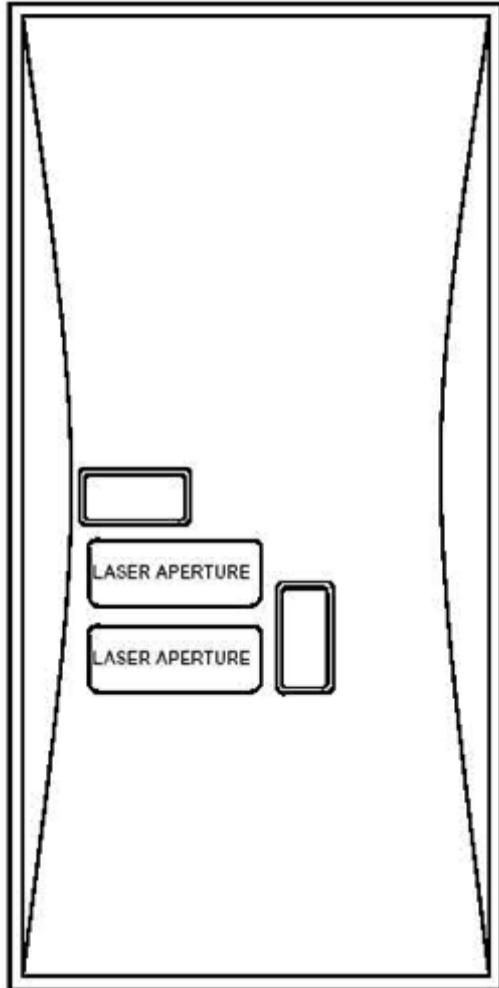


Fig. 7: Affixing identification labels 2



## Warning label check

Warnschilder nach IEC 825 / Warning label acc. to IEC 825

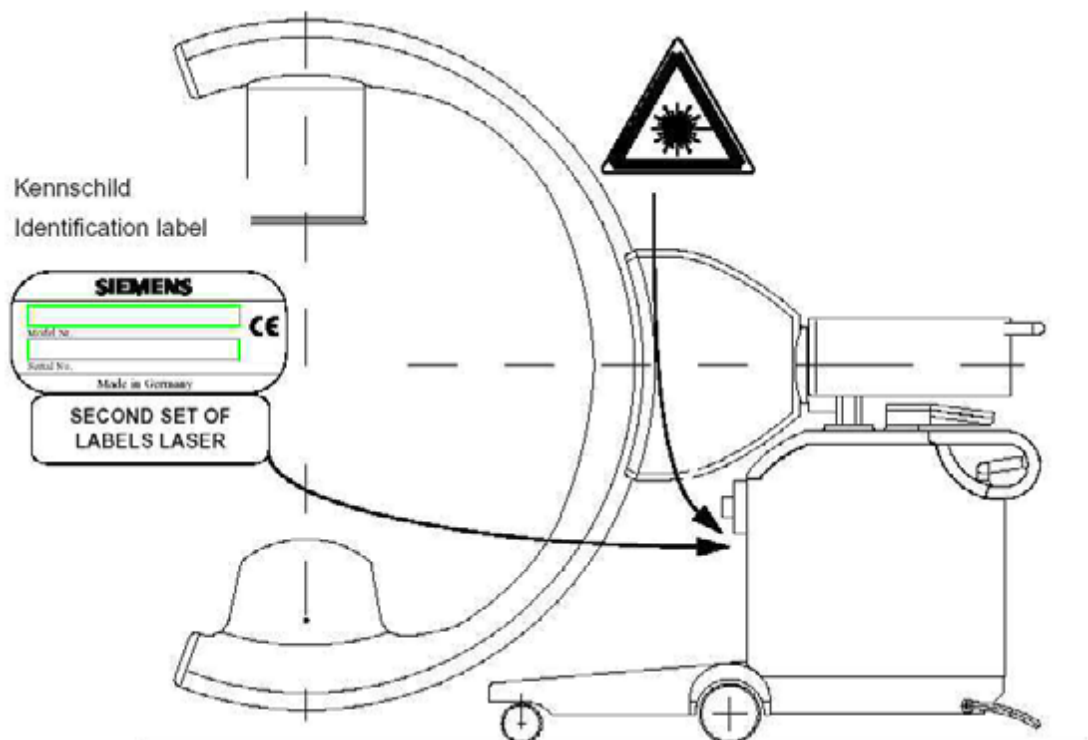


Fig. 8: Affixing the identification labels for GB and other countries

- Check warning label according to (Fig. 8 / p. 17).

**Other countries:** Check warning label according to IEC 825 (text) in local language, warning label according to IEC 825 (symbol) and identification label.

**Great Britain:** Check warning label according to IEC 825 (text) in local language, warning label according to IEC 825 (symbol) and identification label. Also check laser aperture labels (Fig. 7 / p. 16).

## Servicing

### Mechanical safety inspection

- Ensure that the laser light localizer is labeled as described in this document. Replace any labels that are damaged.
- Secure the I.I. attachment to the I.I. ring. Ensure that it is seated properly and locked into place.
- Check the I.I. ring for mechanical damage.
- Check the laser beam exit window at the tube cover for damage.
- Ensure that the laser light fan beams are set as described in this document.

### Operating value inspection

- Check the function of the "Laser light localizer on/off" button on the operating console of the basic unit.
- Switch the laser light localizer back on.
  - ⇒ The laser diodes must shut off automatically after 5 minutes.

No changes; initial publication.

